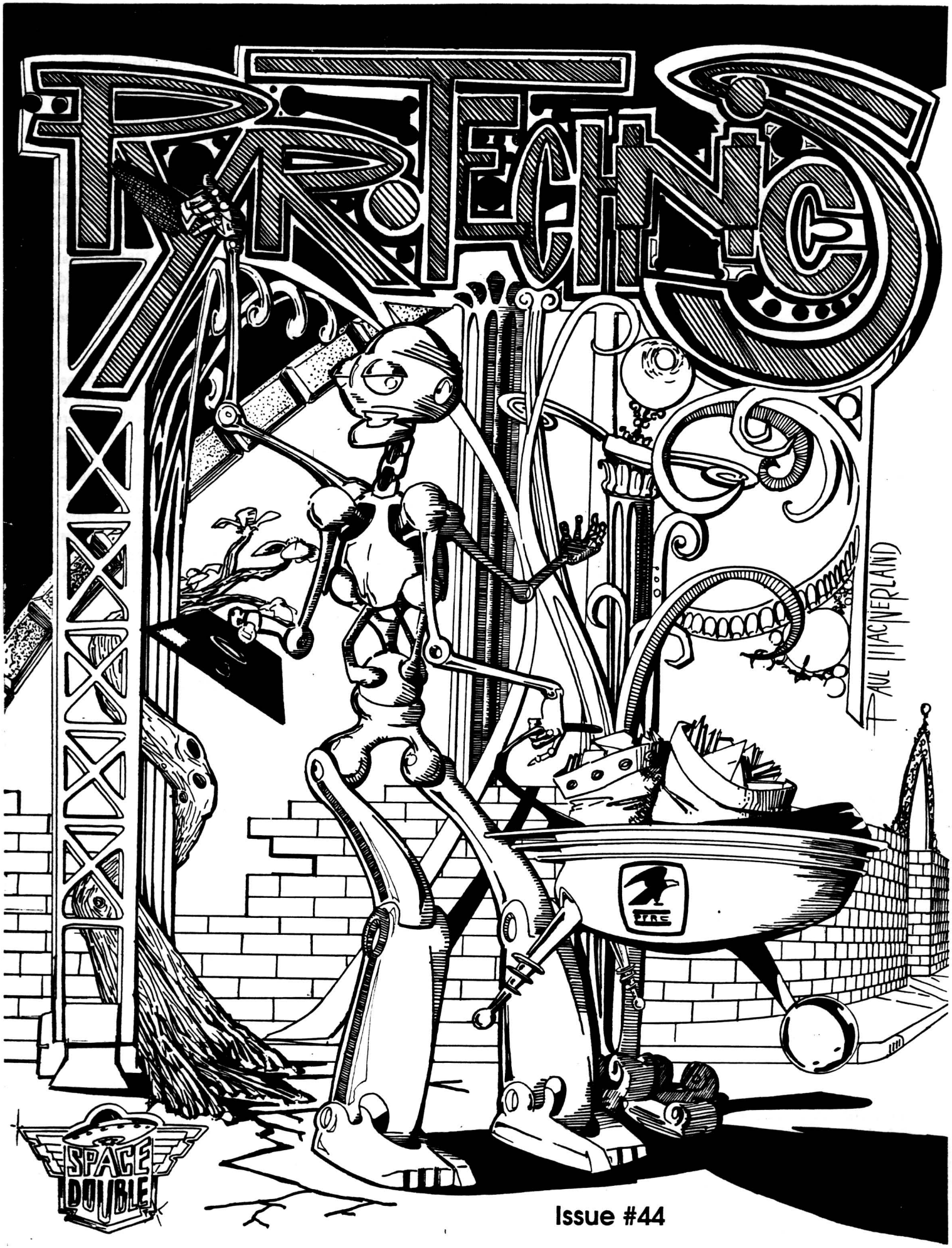
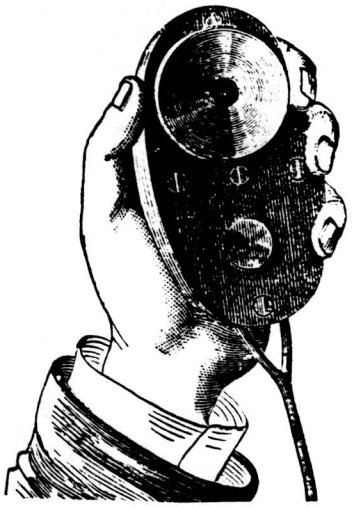


Issue #44

The Now & Then Newsletter of General Technics



Quarks

• We are pleased to report the engagement of Miss Jo Anselm to Dr. Barry Gehm, a Mismanaging Editor of this publication. We thought he was a Confirmed Bachelor, but her charms proved irresistible. They plan to tie the knot next July. Rev. Noel Gehm of Staunton, Illinois, is expected to perform the ceremony. (Yes, he's the groom's father.)

• At last somebody is making money from Cold Fusion! (Outside the state of Utah, we mean.) Our pal Guy Wicker, ace engineer and sometime dirigible pilot, has begun selling Fusion Kits containing tiny vials of deuterated electrolyte, palladium foil, and nickel wire electrodes. The kit comes complete with instructions for twenty-seven bucks. Be warned that Guy offers no guarantee you'll get neutrons, excess heat, tritium, or any other result! But if you've been dying to try fusion experiments in your garage, write to:

Guy Wicker
30437 Fairfax
Southfield, MI 48076
(313) 647-1820

• Paul MacNerland, the brilliant young artist whose work graces our cover this issue, was voted Best Fan Artist in the Capricon X artshow. We are tickled pink, since *PyroTechnics* discovered him. (But don't tell Paul that. He thinks *he* discovered *PyroTechnics*.)

• Franz Zrilich wants Techiedom to tell him: *"What are the largest dry cells and batteries made?"* He needs some details for a story he's working on. Not rechargeables ("storage batteries"), like nicads, gel cells, or lead-acid batteries. "We are limited by reasons of the story to non-storage batteries... Principally we are considering zinc-carbon, alkaline, and lithium cells." He hasn't had much luck calling the battery companies, and thought *Pyro's* readers might be able to tell him more. Well?

• Lots of GTers have been getting published lately. "Frost King" by E. Michael Blake, actor, journalist, and bon vivant, appeared the March-April 1990 issue of *Aboriginal Science Fiction*. The recently doomed *Amazing* published Martha Soukup's story, "Over the Long Haul," in the March issue. Bill Higgins's article "Hermann Oberth: Founding Father of Space" turned up in the March issue of *Ad Astra*. And B.D. "Doc" Gehm has just had two papers accepted by the *Journal of Biological Chemistry*.

• Remember Scitech, the hands-on children's science museum in Naperville west of Chicago? Well, it just moved to much larger quarters (36,000 square feet) in Aurora, thanks to our Whipcracker, Mary Lynn Johnson. She masterminded the packing of two truckloads' worth of quark machines, iron filings, and bubble generators, so that when movers arrived on 3 March, the whole business went smoothly. Other fans have been good to Scitech, too. The DuPage Science Fiction and Fantasy Society became a sponsoring organization. And at Capricon fannish artists donated artwork which sold for $381; the cash went towards construction of a new exhibit. Finally, Todd, Mary Lynn, and the tornado machine they built were written up in the new Chicago-based prozine *14th Alternative*. Shucks, they scooped us!

• In Glen Ellyn, Illinois, GT's Nick DiMasi has won the Coveted Brass Camera Award for a videotape he made last year. When the public-access channel offered airtime to nonprofit community groups, Nick produced a show where he interviewed Bill Higgins to plug the Chicago Space Frontier Society, the local National Space Society chapter. Nick sweated over a hot editing deck to insert spaceflight images in between the talking heads and to generate graphics and titles with his Atari computer. When it came time to compare the year's productions, viewers voted Nick's tape "Best Documentary on an Individual or Organization" and the Glen Ellyn Cable Communications Foundation awarded him a brass TV camera on a marble base.

Fun at Uncle Sam's House of Phantom Surplus

George M. Ewing

Like many other computer hobbyists, I enjoy leafing through the computer classifieds in the local newspaper once in a while. Usually, the equipment is advertised for wildly optimistic prices, (i.e. a "nearly new Commnodore 64 with casstte and 3 games, best offer over $750," etc.) but once in a while, there's something interesting. This time, the one that caught my eye was a tiny item near the middle of the column:

IRS Auction: February 10.
Printing machinery and computers.
Call Revenue Office for details.

This was followed by an IRS official's name and two phone numbers. When I called, I was told that the auction would be held at a computer store on the north side of St. Petersburg, Florida, and was given directions on finding the place, a building in a small industrial park behind a "strip" shopping mall. The premises would be open at 8:00 AM, and the auction would begin promptly at 10.

The auction sounded promising. They probably weren't going to be selling off warehouses full of old mainframe computers and moldy file cabinets that had been used internally in the dungeons of the IRS itself; such sales are normally handled for government agencies by the GSA, though sometimes semi-autonomous organizations like the TVA and the Postal Service handle their own surplus disposal. No, this was going to be inventory and fixtures from a bankrupt computer store that hadn't been able to keep up with its taxes, which meant that it might include almost anything.

On the morning of the sale, I was the sixth person through the door, a few minutes after eight. Anyone who planned to bid in the auction was asked to sign a roster, and was assigned a bidding number. We were then handed two forms, Treasury Form 2434-B, and Form 2433, revision 9.85. The first was a page of legalese excerpted from sections 6331 and 6335 of the Internal Revenue Code. A VERY loose translation into layman's English would go something like this:

A. The goverment has the legal right to sell this stuff, but:

B. If somebody else has a mortgage or other claim on any part of the property that legally comes ahead of the IRS claim, then we can't sell those items, even if they appear on the printed inventory.

C. All property is sold "As-is" and "Where-is", and "without recourse against the United States" (i.e., no fair asking Uncle Sam for your money back if the hard disk on that bargain computer turns out to be crawling with bad sectors, and if you buy a five-ton mainframe computer or printing press, it's your responsibility to arrange prompt, safe, transportation from the premises.)

D. Proper notice of the sale has been given, and the government reserves the right to ask for tentative bids under several different sets of rules, and to then accept the ones which will result in the best price for the IRS. (More on this in a minute; it's important.)

E. Explains the method of payment: cash, certified check, postal money order, etc.

F. Explains that if the sale involves real estate, the previous owners may have legal rights to get the property back under some circumstances, and then cites the sections of the tax code giving more details on the rules that establish who else might have claims against the property, such as municipal or county governments, banks, etc.

The other form, 2433, "Notice of Seizure," is an inventory of all the property being sold, divided up more or less arbitrarily into assorted lots. In this case, some of the lots were fairly large, such as 20 Radio Shack terminals, or all the office chairs in the store; others consisted of a single item, like an IBM Selectric typewriter, or a single DEC printer. The biggest single item on the sheet was a fancy, high-tech printing press that was probably worth fifteen or twenty thousand dollars. This was important, as the presence of a single large item, plus the IRS "multiple methods" sales procedure, may tend to strongly affect the bidding.

Basically, the rules in part "D" above say that the IRS officials can conduct the bidding any way they want; in this case the procedure went like this: First, the official in charge would announce the minimum amount that the government had to realize from the sale to pay off the tax bill. (In this case, the amount was a little over $34,000.) Second, the whole business, all the lots lumped together, would be offered as an aggregate package, and bids would be taken. Third, each lot on the inventory sheet would also be auctioned off piecemeal.

Finally, the amounts of the bids would be compared. If the high bid for the whole package was greater than the piecemeal total, the winning bidder would get the whole shebang, and the piecemeal bids would be rejected. If the total of individual lot bids was greater, those people would get the property. If neither total was up to the required minimum, the government had the option of postponing the sale and trying again another time, etc.

The result of all this was that everybody was really participating in two phantom auctions at the same time, not only bidding against other people who wanted the same items, but also against bigger operators who were bidding on the whole business, so if you won the bid for a single computer or printer, you had to wait until the proceedings were over to find out whether you had really bought the merchandise, or were going to go home empty-handed. This was a clear example of Yogi Berra's law, "It ain't over 'til it's over!"

Bearing all this in mind, I looked over the inventory sheet. It's a good idea to get the inventory sheet ahead of time and study it if you can. (You can write the IRS and request that your name be put on the mailing list for future sales.) The list I had was over three typed pages long and contained 30 bidding lots, so I'll just give a quick summary here:

Besides the printing press and its support equipment, office furniture, copy machines, etc. there were a number of items of interest to a computer hobbyist. These included: a) a batch of 5 Tandy DT-100 terminals, b) a DEC LA180 printer, c) an IBM PC XT with a hard drive, d) 2 Okidata 182 printers, e) a big Sun West power supply, f) a Wang daisywheel printer with stand, g) a batch of 20 Radio Shack DT-1 terminals, h) a batch of 10 Microfazer printer buffers, i) three 2,400 Baud ARC modems, j) a complete service bench, with lots of tools and a 100 MHz dual-trace scope, k) a large batch of unsold MS-DOS software, mostly business applications packages, l) two smaller batches of Macintosh software, and finally, m) a large lot of assorted cases of computer printer and copy machine paper.

All the equipment was open to inspection. The descriptions on the inventory sheets were a little vague; whoever had typed the list up hadn't realized that it might make a difference to a bidder whether a printer had a serial or parallel interface, etc. Did the DT-1 terminals have an internal modem or a printer port? The only way to tell was to go over to the stack of machines and look for yourself.

A lot of the equipment appeared not to have manuals, or the manuals were elsewhere on the premises. The 2,400 baud modems, for example, were in one lot, and the manuals for them were on a bookshelf full of software that was listed under another lot. When several people pointed this out, the IRS officials agreed that the manuals ought to go with the equipment, and would be included if they could be located, but the final responsibility was the winning bidder's.

Except for a few minor problems with the documentation, everything was well organized, and it was clear that the IRS officials had gone to a lot of trouble to try and maximize the return from the auction for the taxpayers. Whenever possible, the equipment was all plugged in and running. Potential buyers were welcome to fiddle with the keyboards, run CheckDisk on the PC and look at the hard disk directory, etc. They had arranged for the former employee who had been running the printing press to be there and answer technical questions, and print samples were available for inspection.

There was a large stack of equipment in one corner of the office that was off limits, and was not on the sale inventory. This included equipment that was either the personal property of the employees, property of third parties, such as customers who had sent their computers in to the store for repair, and had then had them trapped there when the business filed for bankruptcy, and equipment which had already been seized by other agencies, such as the city or county tax authorities. The repair customers would eventually get their property back, but probably only after long delays and some annoying paperwork.

By the time of the 10:00 start, there were forty or fifty bidders crowded into the front office of the building. Unlike the popular stereotypes, these IRS agents did not have horns,

sharp vampire fangs, or pointy tails. One large gentleman in a green jacket and military-style baseball cap did fit the Hollywood image of a T-man; he looked like he would be happy to break down doors for Elliot Ness if asked. The rest of the staff looked like ordinary business people. The agent in charge was a young woman in a gray suit who looked like an IBM sales rep.

She opened the proceedings by reminding everyone of the "as-is" nature of the sale described on the handout sheet. All sales would be cash except for the printing press and a couple of other big items. For these, the IRS would accept a 20% cash deposit, and the buyer had 24 hours to arrange the bank paperwork for the rest of the money. The aggregate sale went quickly, as there was only one bid, $35,000 for the whole package, just a tad above the required minimum.

As the piecemeal sale began, the same individual bid $13,000 for the press, and another $2,800 for the support equipment. The bidding was very time consuming, with small lots of stuff being bid up a dollar or two at a time. The five DT-100 terminals went for $275 for the lot, the DEC printer went for $75, the PC with the hard disk went for $800, the Wang printer for $155, and so forth.

I was interested in the DT-1 terminals, as they had a front panel knockout for a pair of disk drives, and it would be fairly easy to drop a Heath H-89 CPU card or an Ampro Little Board into one for a cheap CP/M computer. I had no place to store 20 of the little rascals, though. The winning bid wound up being $165 for the lot of 20, or something over eight dollars each for a working serial terminal! The guy who bought them said he'd be happy to sell off individual terminals for twenty bucks or so to anybody who wanted one. "Don't worry, Al," his friend said, "you can always just take out a want ad and unload 'em in a hurry!"

However, it soon became apparent that the prices for the various lots were a little bit too much of a bargain. By about half way through the bidding process, it became clear that the total was going to fall short of the $35,000 aggregate bid, and things got rather silly, as it became clear that nobody else was actually going to get anything, and that most of the hastily-negotiated side deals and horse trades were worthless.

If you want to bid on an IRS sale of computer equipment, (or any other surplus, for that matter) here are a few suggestions:

First, try to get all the intelligence on the sale that you can. Call or write your local or regional IRS office (not the big national centers that process personal tax returns) and ask how you can get on the mailing list for auctions in your area. If you are a member of an active computer club or user group, this is a good club project. Also, do your homework! Once you have a list of the equipment that is going to be auctioned, check out the prices in the Computer Shopper classifieds, the surplus catalogues, maybe even attend a couple of swapmeets in your area, and get a feel for the realistic street price for a given item.

Once you get to the site of the auction on the morning of the sale, make it a point to aggressively check out the condition of the equipment you are interested in. There's a big difference in the value of hardware that is brand new inventory, still in the factory carton, and stuff that has been kicking around the repair shop. Be especially cautious about software; check to see what version the packages are, as obsolete early versions of very expensive business packages may be worth only pennies on the dollar.

Always check for manuals and documentation, cables, cases, etc. for equipment. The people who type up the inventory may not be very knowledgeable about computers, and information is often lacking about serial or parallel interfaces for printers, etc. so make it a point to check the equipment out yourself. (Reading up on a borrowed tech manual before the sale can really help here.) For example, at this sale, the officials were unclear about the differences between an IBM PC, XT, or AT!

If possible, arrange to attend the auction with a number of friends or fellow club members. This allows you to pool your resources and bid on a larger lot of material than you could handle on your own. Pooling transportation can be a big help; a friend with a big van or pickup truck is nice to have, and having several reliable individuals to help carry bulky and heavy items can be really important. If the sale is in a doubtful neighborhood, having club members to watch the truck and provide security while the rest of the group goes inside for another load of surplus goodies can help insure that you get the stuff home safely.

Other important tips include making sure you have sufficient funds with you in the proper form, (Read a copy of form 2434-B for details) and take along a supply of business cards or stamped, self-adressed postcards with you; if a rival bidder ends up with a big batch of computers at a bargain price, he may be willing to horse-trade with you later. You may not have the resources to bid on a lot of fifty laptop computers, but if the successful buyer has your name, address and phone number, it will expedite cutting a deal later for one or two machines.

Finally, as with all surplus wheeling and dealing, try and make a realistic estimate of what your time is worth; you may have to spend a whole morning bidding to save a few dollars. If it becomes clear that, as in the case of this auction, a big bidder for the overall business is going to get it, and that the piecemeal sale is going nowhere, you can give him a business card and a quick list of the items you are interested in, and then go home.

Newcomb's Paradox an Attempted Explanation

by Fred Robinson

Newcomb's Paradox, so-called by Martin Gardner, is a little thought problem of a philosophical nature which can lead to either an evening of stimulating conversation or an all-out name-calling argument. I present it here with no apology, setting it up in my own terms.

The Predictor, a nondescript being who is quite honest and almost always right when predicting the future, likes to play with peoples' minds during the off hours. It has a simple setup, involving two closed, opaque boxes, and a pile of money.

Picking an unsuspecting dupe from the street, it gives the following spiel: "I have here two boxes. Box 1 contains one thousand dollars. Box 2 contains either nothing or one million dollars. You may take what is in both boxes, or just what is in box 2. Now, I have made a prediction about the choice you will make, and have based my actions on that prediction. If I predicted you would take what is in both boxes, I put nothing in box 2. However, if I predicted that you would take only what is in box 2, then I put One Million Dollars in box 2."

"Well, gee," says the dupe, "uh... what did you predict?"

"Aha," says the Predictor, "I predicted you would ask me that. I also predicted that I wouldn't tell you. I won't tell you what I predicted. You are on your own. Oh, one last thing. If I predicted that you would make your choice by flipping a coin, or some such, I left nothing in box 2. No peeking, now." The Predictor then leaves the room, and gets his jollies by listening in on the thought processes of the dupe.

That's the setup. Put yourself in the place of the dupe. What do you choose to take?

A bit of background may help. Assume that the Predictor, while admitting that it is not always accurate, has never been wrong. Also, that the Predictor is honest and will not try to trick you by changing the contents of the boxes while or after you decide. You may assume that the Predictor is God, or an alien or human being with psychic powers, or a computer which can calculate the outcome of a situation given a complete analysis of the factors involved (including your brain).

You have two choices. Take the contents of both boxes, or just the contents of box 2. Either way, you can't loose. Box 1 will always have one thousand dollars. You can even assume that you can see the stack of bills through a window in box 1. So what do you do? Try to decide before you continue reading.

First, consider taking just box 2. The Predictor is extremely accurate in its work. Therefore, if you take box 2, you will be ahead by one million dollars. But, if you take both boxes, you only get one thousand dollars. Clearly, it is to your advantage to take box 2.

On the other hand, consider taking both boxes. The Predictor has left the room. The money has been in the boxes since before the Predictor pulled you in off the street. If both boxes contain money, then if you decide to take both boxes, the million dollars won't magically disappear. Clearly, it is to your advantage to take both boxes.

Now what? Both choices can't be right. But which one is? Nobody can say, least of all games theorists.

What you decide depends on ~~your greed~~, your belief in free will versus determinism, and your faith in the accuracy of the Predictor.

The first argument, for box 2, is a deterministic argument. Since the Predictor has based its past actions on your future actions, it would seem that your future actions are now cast in concrete. You have no choice in what you do.

The second argument, for both boxes, is a free-will argument. The Predictor has made its choice, so you can darned well do whatever you want!

The situation gets stickier when you start to doubt the accuracy of the Predictor. Your best action then depends on the perceived accuracy of the predictor and the amounts of money involved. For the situation given above, the payoff matrix looks like this:

		Predictor has predicted you would take: Box 2	Predictor has predicted you would take: Both boxes
You take	Box 2	$1,000,000	$0
	Both boxes	$1,001,000	$1,000

Figure 1: Payoff matrix for Newcomb's Paradox. You get the amount in the cell corresponding to the prediction and your action.

When the Predictor is always absolutely accurate, your best move is to take box 2. When the Predictor is always completely wrong, your best move is to take both boxes. When the predictor is exactly 50% accurate, your best move is still to take both boxes.

If you want to be pedantic about it, your best move is to take both boxes except when the Predictor is 100% accurate. This is, I believe, a fair statement of a "dominance" argument for taking both boxes. But as the accuracy of the Predictor increases, so do your chances of coming out with more money if you choose box 2.

The "expected utility" of a choice depends on how much money is at stake and the accuracy of the Predictor. Assuming the Predictor is 90% accurate, the expected utility of taking both boxes is

(0.1*$1,001,000) + (0.9*$1,000) = $101,000

and the expected utility of taking only box 2 is

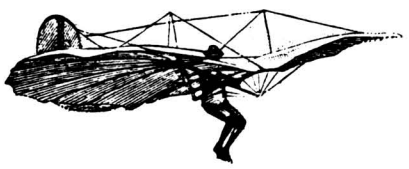
(0.9*$1,000,000) + (0.1*$0) = $900,000

Using this principle, the best move is to take box 2.

Try it with different ratios of money. Replace the million with two million, or five thousand. When the amounts of money are similar, the game changes.

Where do I stand? Since this is a thought experiment, I can afford to drop my skepticism and accept the existence of a near-100%-accurate predictor. I opt to take box 2, and walk out with one million buckaroos.

For more information on this little delight, see "Knotted Doughnuts" by Martin Gardner, chapters 13 and 14 (pp. 155-175). Chapter 13 is Gardner expounding on the topic, and chapter 14 is an analysis by Robert Nozick, a decision theory expert, through whom Gardner first learned of the paradox.



It's time once again to

Ask Dr. Computer Science

So let's ask Dr. Computer Science. ***That's me!*** Remember, he knows more than you do! ***That's right!***

(By Steve King, with apologies to *Duck's Breath Mystery Theatre* and National Public Radio.)

Dear Dr. Computer Science, Why won't my program run?

Programs running. That's all I ever hear anymore. Whatever happened to the good old days when programs just walked, like the rest of us? But no, in today's world of high–speed multiple megahertz processors, all programs are expected to run everywhere! Has it ever occurred to you that your program is just plain tired of running? That maybe it would rather walk for a change, or, at least, ride the address bus to where it's going? Have a heart! Let you programs slow down to take time to smell the roses! And, if you must make them run once in a while, at least buy them a comfortable pair of running shoes.

Dear Dr. Computer Science, I was running a program on the mainframe, when all of a sudden my terminal locked up. What do I do?

The term "locked up" comes from the fact that the little gnomes inside the terminal get tired of working and lock the terminal so you can't get any more data into it. The only solution is to break in with a lockpick or with the services of a good locksmith. Either that, or to give the terminal a good swift kick. Gnomes can't stand to be kicked around, and they will eventually unlock the terminal for you, just to avoid this unpleasantness. In fact, there's no computer problem in the world that a good, swift kick can't handle.

Dear Dr. Computer Science, When I unpacked my new PC, I found a book labeled **MS–DOS**. Where are the **MS–DON'TS**?

There aren't any. Microsoft made a perfect operating system. It can do anything. Hence, the only book they include is **MS–DOS**, a list of some of the things that it can do. If you want a limited operating system that has enough "don'ts" to warrant an entire book devoted to them, I suggest you buy a Macintosh instead.

Dear Dr. Computer Science, What does a word processor do?

Are you familiar with the way a food processor slices, dices, and makes julienne fries out of ordinary food? Well, a word processor does the same thing with words. Yessirree, just drop any old word you want into a word processor and it will come out sliced up any which way. Drop an entire sentence in and out comes hash! Mmmm, mmmmm good! So, next time someone tells you to "eat your words", just pull out your handy word processor and settle down for a delightful meal.

Dear Dr. Computer Science, How do I get a printout?

Many mail–order houses, such as Sears, JC Penney, and L.L. Bean now sell printouts at quite reasonable prices. To get a printout, simply drop any of these places a check and they'll send you a printout by way of return mail.

Dear Dr. Computer Science, How do I turn my computer on?

Many people write to ask me this, but I can't for the life of me figure out why. Who would want to turn a computer on? But, since so many are interested in it, I'll answer your question. To turn a computer on, try blowing in its ear. Whisper sweet nothings to it while you run your hand up its leg. Tell it you love it. I'm sure this will turn you computer on. Why shouldn't it? It always turns me on!

Dear Dr. Computer Science, I turned my computer on. Now what?

What am I, the Playboy Advisor or something? Just play it by ear, I'm sure it will come naturally to you! Just keep in mind which are the male and which are the female connectors and you'll have no problem. But remember, you never know about viruses in this day and age. Play it safe, always wear a write–protect tab!

Dear Dr. Computer Science, Why does a Macintosh look like a toaster?

Because it is one. Macintoshes were originally designed to be toasters for those little cocktail breads. Because cocktail bread, especially rye cocktail bread, is so hard to toast, a computer controlled toaster had to be developed. The result was the Apple Macintosh. The 3.5" disk drive is really the slot you put the toast in. The contrast control doesn't do anything for the screen, but it does determine how light or dark the toast will be. It's interesting to note that the microprocessor actually produces so much heat that the traditional toaster heating elements could be removed altogether. Go to any high–society party and poke around in the kitchen. I'm sure you'll see a whole legion of Macintoshes toasting up an entire bakery of cocktail bread!

Dear Dr. Computer Science, Why can't I run an IBM PC program on my school's IBM mainframe? If they're both made by IBM they should be able to run the same programs, right?

Absolutely right. IBM PCs and IBM mainframes can indeed run the same programs. However, you'll never see a PC program running on a mainframe for the simple reason that the mainframe considers PC programs to be beneath its dignity. It's kind of like asking the president of General Motors to wash dishes for a while in Joe's Diner. It's just not going to happen! On the other hand, PCs would love to run mainframe programs, but no one can seem to figure out how to get one of those big fixed disks into the PC's floppy drive. Once that happens, though, the bloodless revolution will come and we will see the emergence of a classless, Marxist computer society. Whether that's good or bad, I don't know. I'm a computer scientist; I don't need to understand politics.

Dear Dr. Computer Science, I just erased a program off of my disk. How can I get it back?

It depends on why you erased it. Programs have very delicate egos, and once you hurt them it's very hard to get them to come back to you. If you erased the program because you thought you didn't need it anymore, you've got the best chance to get it back. Programs, like people, need to be needed. Talk to it nicely and convince it that you still need it. If you erased the program out of sheer negligence, you've got about a fifty–fifty chance to get it back. You've hurt it's feelings and it probably thinks that it can do better elsewhere. And it's probably right! There's nothing worse than someone who erases a program without even realizing what they're doing! But, if you erased the program because you found another program, forget it. The first program will never come back. Programs are very jealous and, once jilted, are lost forever. Remember: "If you love a program, erase it. If it comes back it's yours forever. If not, you feel like a real idiot."

Thank you, Dr. Computer Science! Send your computer science questions to *Ask Dr. Computer Science*. Remember, he's not a real doctor! ***I have a Master's Degree.*** In Computer Science!

The Mob List

Here is the list of people who subscribe to *PyroTechnics*. Publishing the Mob List is an old tradition, but this is the last time we'll print the whole thing—it's simply gotten too big. In the future, copies will be available to GT members who send two first-class stamps to the *Pyro* address.

Gary Agin
717 Cedar Bluff Dr.
Houghton MI 49931

David & Carolyn Aime
6306 Pioneer Dr.
Springfield VA 22150

Matthew B. Alschuler
1308 N. Hoyne #3
Chicago IL 60622

Dave Alway
1101 Egleston
Kalamazoo MI 49001

Bob Alway
2830 Radcliffe
Portage MI 49081

Andy Anda
600 University Ave. SE #307
Minneapolis MN 55414

Dave Anderson
P.O. Box 1057
Tuxedo NY 10987

Lynn C. Anderson
1014 18th Ave. SE
Minneapolis MN 55414

Jo Anselm
2236 W. Logan
Chicago IL 60647

Deb Baddorf
735 Cypress
Aurora IL 60506

Mike Bakula
375-E Lionstone Dr.
Colorado Springs CO 80916

Covert Beach
1200 Waynewood Blvd.
Alexandria VA 22308

Brett Bellmore
8750 Burt Rd.
Capal MI 48014

Alice & Mike Bentley
1935 W. Pratt
Chicago IL 60626

Mike Bernson
3617 Oak Dr.
Ypsilanti MI 48197

Jeff & Paula Boes
3826 New Holland Rd.
Hudsonville MI 49426

Bill Broderick
4601 120th St.
Kenosha WI 53142

Ben Burch
668 Forest Ave.
Elgin IL 60120

Frank Bynum c/o C. A. Bynum
1616 Rosewood Ave.
Louisville KY 40204

Kurt Cagle
6136 N. Hamilton
Peoria IL 61614

Bob & Cyndy Calverley
2455 Northpark St.
Thousand Oaks CA 91362

Steve Chekey
10436 Crow Rd.
Litchfield OH 44253

Chris & Cecile Cloutier
1611 Lincoln #7
Marquette MI 49855

John Cochrane
491 Ironwood Dr.
Des Plaines IL 60016

Jerry Corrigan
1948 W. Farwell Ave.
Chicago IL 60626

Paul D.
P.O. Box 14204
Phoenix AZ 85063

Hugh Daniel
712 Ashbury St.
San Francisco CA 94117

Howard Davidson
59 Club Dr.
San Carlos CA 94070

Michael Davis
5700 Etiwanda Ave. #213
Tarzana CA 91356

Nick DiMasi
22W576 Burr Oak Dr.
Glen Ellyn IL 60137

Chuck Divine
214 Park Lane
Trenton NJ 08609

Dermot Dobson
22 Ramsey Rd.
Oxford OX3 8AX

Doug Drummond
41 N. Addison Rd.
Villa Park IL 60181

Colleen Kobe & Duane Corpe
8 Hillcrest Heights Ln.
Mount Vernon Iowa 52314

Al Duester
19 Quissett Ave.
Woods Hole MA 02543

Chris & Pam Dunn
6034 N. Fairfield #3F
Chicago IL 60659

Jeff & Carol Duntemann
103 Hidden Dr.
Scotts Valley CA 95066

Tim Eisele
P.O. Box 726
Houghton MI 49931

Joan Eslinger
11846 Paseo Lucido #2040
San Diego CA 92128

Robert Ewart
P.O. Box 280
Marysville MI 48040

George Ewing
P.O. Box 502
Cheboygan MI 49721

David Fassett
30 Henry Apt. M
Framingham MA 01701

Richard Fox
19853 Williamson Ave.
Mt. Clemens MI 48043

John Frambach
Rt. 1; Box 339B
Sawyer MI 49125

James & Erica Freeman
214 Sterling Pl. Apt. 201
Brooklyn NY 11238

Richard & Judith Friedman
1560 E. 18th St.
Brooklyn NY 11230

Alan Frisbie
4759 Round Top Dr.
Los Angeles CA 90065

Al H. Fry
HC76 Box 2207
Garden Valley ID 83622

Jim Fuerstenberg
624 Elder Ln.
Winnetka IL 60093

Charles Galway
1480 S. 1100 East Apt. 8
Salt Lake City UT 84105

Gordon Garb
1141 Polk Ave.
Sunnyvale CA 94086

Derek Gatlin
457 Larchwood Pl.
Oakley CA 94561

Barry Gehm
1400 E. 55th Pl. #212 S.
Chicago IL 60637

Rose Geier - Wilson
712 S. Foley
Champaign IL 61820

Lawrence M. Gitchell
130 Fellows Ct. Apt. A
Elmhurst IL 60126

Peter Glaskowsky
9021 S. Normandale
Ft. Worth TX 76116

Rob Greenhoe
443 E. Wadsworth Hall
Houghton MI 49931

Paul Haas
1200 Washington 3D
Hoboken NJ 07030

John Hall
22 Lucrest Dr.
Rochester NY 14609

Bob Halloran
17 Lakeland Dr.
Port Monmouth NJ 07758

William Hanes
Treetop Circle Dr. A-2
Portland TN 37148

M.C. Hansen
5057 S. 84 Ct. #6
Omaha NB 68127

Lee Hart
111 James St.
Dowagiac MI 49047

Gabe & Audrey Helou
2691 Roundtree
Troy MI 48083

Bob Hendricks
273 Gregory #8
Aurora IL 60505

Bill Higgins
853 Lorlyn Dr. Apt. 1E
West Chicago IL 60185

Martin Hoare
45 Tile Hurst Rd.
Reading Berkshire RG17TT

Douglas Hosto
Box 120, RR 1
Highland IL 62249

Doug Humphrey
7804 Jacobs Dr.
Greenbelt MD 20770

Ben Huset
6710 Vernon Ave. S.
Minneapolis MN 55436

David Ifversen
11 Forest Hill Dr. #202
Glen Ellyn IL 60137

Doug Ifversen
800 Revere Ct.
Northville MI 48167

Angel Insley
434 W. Roscoe #11D
Chicago IL 60657

Rich Jervis
334 Marvel Ln.
New Carlisle IL 46552

Steve Johnson
274 Paraiso Dr.
Danville CA 94526

Todd Johnson
2131 W. Illinois
Aurora IL 60506

Mary Lynn Johnson
2131 W. Illinois
Aurora IL 60506

Clyde Jones
P.O. Box 1099
Waukegan IL 60085

Sherry Karp
9021 Keating
Skokie IL 60076

Patrick Kellogg
1100 4th St.
Minneapolis MN 55414

Choudet Khuon
25W251 Highview
Naperville IL 60563

Robert King
7510 Harrison
Hanover Park IL 60103

Steve King
804 Panorama Dr. #1A
Palantine IL 60067

Tom Krabacher
1412 Alice
Davis CA 95616

Steve Krause
2805 W. Larchmont Ln. H-4
Peoria IL 61615

Dave Labick
18196 N. Territorial
Chelsea MI 48118

Chuck Lane STOP 256-48
Physics Dept. Drexel Univ.
Philadelphia PA 19104

Kevin Langdon
Polymath Systems P.O. Box 795
Berkeley CA 94701

Bill Leininger
15 S. Maple Ln.
Prospect Heights IL 60070

David Levine
117 NW Trinity Place #37
Portland OR 97209

Ken Levitt
9 Linn Lane
Wayland Mass. 01778

Larry Cole & Linda Lee Stuckey
35123 Mulberry Lane
Glen Ellyn IL 60137

Jim Lisowski
902 Willow Lane
S Milwaukee WI 53172

John Lussmyer
12900 Northfield Blvd.
Oak Park MI 48237

Paul MacNerland
554 Arbor Ave.
West Chicago IL 60185

Michael Madaj
5208 S. Latrobe Ave.
Chicago IL 60638

C. Madsen
P.O. Box 2066
Oak Park IL 60302

Roxanne Meida
1300 Army Navy Dr. #807
Arlington VA 22202

Glen Miller
616 S.W. 67th St.
Oklahoma City OK 73139

Harold Miller
480 Olinda Rd.
Makawao, Maui Hawaii 96768

Chip Morningstar
3339 Kipling
Palo Alto CA 94306

Eric Nehrlich
903 S. Hale St.
Wheaton IL 60187

Ruth Ann Nichols
306 W. John St.
Champaign IL 61820

Kevin Nickerson
1404 Brookfield Dr.
Ann Arbor MI 48103

Walt Noiseux
Box 181
Syracuse NY 13201

Willard & Ann Nutting
2979 Lake St.
San Francisco CA 94121

Robert Osband
P.O. Box 641
Cape Canaveral FL 32920

Chuck Ott
P.O. Box 1480
Chicago IL 60690

Andy P.
1935 N. Hicks Rd. #205
Palatine IL 60074

PFRC
125 M.U.B.
Houghton MI 49931

Sam Paris
P.O. Box 41067
Chicago IL 60641

David W. Peters
28758 Herbert
Madison Hts MI 48071

Steve & Mary Poling
2060 Highbluff NE
Grand Rapids MI 49505

Tullio Proni
530 West Walnut
Kalamazoo MI 49007

Neil Rest
1336 Bryn Mawr
Chicago IL 60660

John Ridley
219 Hubbel
Houghton MI 49931

Jim Rittenhouse
2125 W. Juneau
Milwaukee WI 53233

C.W. Robertson
WSU Physics Box 32
Wichita KS 67208

Fred Robinson
29766 Everett
Southfield MI 48076

Mark Rose
9037 Palatine Ave. N.
Seattle WA 98103

Greg Ruffa
1004 7th St. SE #103
Minneapolis MN 55414

Steve Salaba
610 Luella Ct.
Kalamazoo MI 49001

Claude Saxon
1337 Faxon 2
Memphis Tenn. 38104

Joachim Schurmann
Via Gen. Guisan 21 A
CH-6830 Chiasso Switzerland

H. J. Scrimgeour
1260 Marlborough Ct. #902
Oakville ONT LGH 3H5

Joyce Scrivener
P.O. Box 7620
Minneapolis MN 55407

Michael Sestak
P.O. Box 4114
Cheyenne WY 82001

Scott Shjefte
Data Space Systems Box 10295
Minneapolis MN 55458

Alan Showman
RR 2, Box 354
Jackson MN 56143

Renee Sieber
525 Walnut
Kalamazoo MI 49007

Jon Singer
1030 Heather Stone
Sunnyvale CA 94087

Dale Skran
54 Lenape Trail
Tinton Falls NJ 07724

Weiner J. Smith
29 Wadsworth St.
Geneseo NY 14454

Rod Smith
730 Cline St.
Frankfort KY 40601

D. Smith
P.O. Box 40339
Berkeley CA 94709

Tom Snoblen
1218 City Dr.
Ann Arbor MI 48103

Henry Spencer
Box 280 Station A
Toronto Ontario M5W1B2 Canada

Laurent Stadler
1441 Royal St. George Dr.
Naperville IL 60563

John Stanley
4157 Lyndale Ave S
Minneapolis MN 55401

Bill Stoddard
493-A F Street
Chula Vista CA 92010

Frank Stodolka
1326 Monroe St. NE
Minneapolis MN 55413

Jorj Strumolo
5 Bowman Dr.
Warwick RI 02889

Bernice K. Suominen
P.O. Box 165
New London PA 19360

Bill Surrett
1631 W. Lunt 3B
Chicago IL 60626

Jim Swain
2639 Hawthorne Dr. NE
Atlanta GA 30345

Dale Swarts
16812 Milliken
Irvine CA 92714

Susan Rae Tallmadge
266 Western Ave.
Cambridge MA 02139

Linda Tangalan
219 Blanche
Houghton MI 49931

David Taylor
3030 Viola Dr.
Beavercreek OH 45385

Gary Thieme
8050 McDermitt #38
Davison MI 48423

Keith & Kathy Thorne
400 S. Spencer
Aurora IL 60505

Jeff Tolliver
305A East 19th Ave.
Columbus OH 43201

Greg Tomensky
6432 Snowbird Lane
Charlotte NC 28212

Bob & Connie Trembley
11542 Roxbury St.
Detroit MI 48224

Don Vandersluis
6163 Knoll Wood Rd. #102
Willowbrook IL 60514

Kiran Wagle
103 W. Oak St.
Ellettsville IN 47429

Mike Walsh
7622 N. Rogers
Chicago IL 60626

Nicco Wargon
2251 Hillsboro Ave.
Los Angeles CA 90034

Robert Wedbush
216 De Villen
Royal Oak MI 48073

Dave & Suzannah West-Powell
Box 98
Riply OH 45167

Andy Whitlock
6 W. Barton
Newaygo MI 49337

Guy Wicker
30437 Fairfax
Southfield MI 48076

Bob Wittig
4304 W. Roundhouse #4
Swartz Creek MI 48473

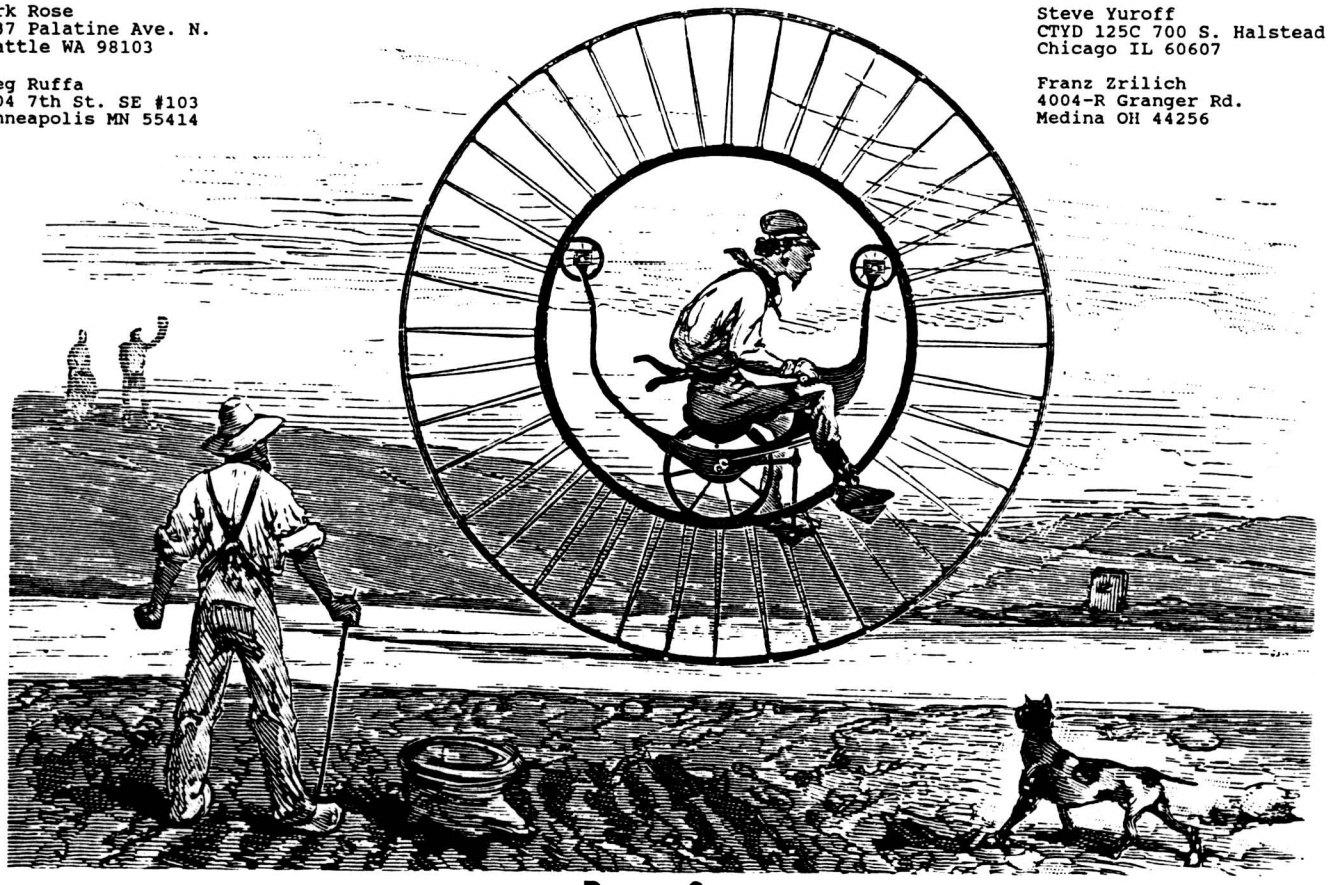
David Wruck
901 Washington #3W
Evanston IL 60202

Erick Wujcik
683 Prentis #3A
Detroit MI 48201

Moshe Yudkowsky
2630 W. Greenleaf
Chicago IL 60645

Steve Yuroff
CTYD 125C 700 S. Halstead
Chicago IL 60607

Franz Zrilich
4004-R Granger Rd.
Medina OH 44256



SOME IMPORTANT THINGS TO CONSIDER

SOME IMPORTANT THINGS TO CONSIDER

SOME IMPORTANT THINGS TO CONSIDER

PYROTECHNICS is doing quite well these days, especially since we've finally gotten all the bugs out of the mailing list and the newsletter has successfully attained self-sufficiency. All the folks on our mailing list are either paid subscribers or contributors and that means a balanced budget. Now that we have reaced this point, we would like to poll the readers for a few opinions on just where we go from here.

For instance, though the question has been raised in the past, no one has really defined just what it means to be a member of General Technics. We have decided to restructure GT, and try to get it on its feet again; but in order to do this properly, we need some input as to what to do and not do. While nothing concrete has been laid out, one idea put forth was to make participating in PYRO (writing articles, submitting Biodatas, etc.) a requirement for membership. This idea comes from the original goals that Jeff Duntemann had for the group in the beginning which was that GT would act as an information exchange for people interested in tech. Well, that has changed a bit since GT is going to try harder to live up to its name: General Technics. There are far more talents in our group than just the ability to assemble electronic parts, and we'd like to invite a wider range of expertise into our circle. We can't help but benefit from the influx of new people and new ideas.

PYRO's mailing list has grown by leaps and bounds with each issue which also necessitates a change in policy. Henceforth, PYRO is going to be the mouthpiece for General Technics, and will be available in subscriptions and as sample issues to anyone who pays for them. However, information such as the Mob list, berserker announcements, etc. will be confined to private mailings. Perhaps a service provided free with your GT membership? We could do new namebadges, (I like the old ones a lot, and we could probably get them made that way again), update the PYRO index, and so on.

It would be real nice to give GT some substance again, instead of letting it languish as a nebulous non-entity. There are certainly reasons for doing so, since 66 people showed up at the last Houghton Berserker, a record number! What follows are some questions that we'd like some input on:

1. What did you think a GT membership USED to entail?
2. What to you think a membership should entail now?
3. Should we charge for it?
4. Should we require participation in PYRO?
5. If not, what other criterion would you use?
6. What kind of benefits would you like to see from being a member?
7. Does PYRO lack in any areas that we should address?
8. How about: Making memberships real cheap for contributors and expensive for those who don't?

PyroTechnics
The Now & Then Newsletter of General Technics

Published Quarterly

Mismanaging Editors	Bill Higgins Dr. Barry Gehm
Classified Ads	Sam Paris
Mailing List	Dave Ifversen
Madam Mailbox and Reprowoman	Mary Lynn Skirvin Johnson
Treasurer	Connie Trembley
Director, Advanced Systems Division	Bill Leininger
Dominatrix	Mary Lynn Skirvin Johnson

Small Print Department

Subscriptions

are available at $4.00 for four issues (includes one free classified ad), $5.00 from Canada, and $9.00 internationally. Maximum subscription length: 8 issues. Amounts are payable in US dollars or International Reply Coupons (available at your local post office). Please make all checks and money orders payable to Constance Trembley, and write 'PYRO' somewhere on the check. (In the notes field, or wherever. Thanks.)

Advertising Rates

A free classified ad of 100 words or less is included in the cost of a four issue subscription. Quarter page ad - 4 1/4 inches wide by 5 1/2 inches tall, camera ready = $8.00. Half page ad - 5 1/2 inches tall by 8 1/2 wide, camera ready = $15.00. Full page ad - 8 1/2 inches tall by 11 inches wide, camera ready = $30.00. Please remember to leave a quarter inch white border all the way around your ad or we will reduce it to fit. Fees for ads are non-refundable. Purchasers of 1/4, 1/2, or full page ads need not be subscribers and will receive a free copy of the issue their ad appeared in.

Submissions

PYROTECHNICS gleefully accepts contributions in the form of art, and articles. If at all possible, text should be formatted 5 inches wide and justified. PLEASE! If you go to the trouble to format it, make sure that your finished copy is BLACK. Disks are also acceptable if you do your text as an IBM or Macintosh or Atari (8 bit) file.

Contributions of art can consist of cartoons, fillos, photos, etc. We prefer good black photocopies to original art.

All contributors will receive a free copy of the issue they appeared in, and if that contributor is a subscriber, then the subscription is extended by one issue.

PYRO would also like to retain reprint privileges on all contributions. If you have any serious objections to this, let us know before we print your material. (Reprints of earlier issues are made and sold to help pay for larger issues, half tone reproduction, etc.)

Any material sent to PYRO will not be returned unless accompanied by a self addressed, stamped envelope.

All correspondence should be addressed to:
PyroTechnics
P.O. Box 217
West Chicago, Ill.
60185

While Mary Lynn receives the mail, she might not be the one to answer it. Please specify if you need an immediate reply.

Guidelines For Electronic Submissions

Material for use in PyroTechnics may be submitted to the editors on disk or via electronic mail if you follow these simple rules:

On Disk:

1. Unless absolutely impossible, please send plain text. Each word processing package has its own way of storing text on disk, with various attractive formatting options. Unfortunately, any other word processing package will look at your file and throw up their hands. Fortunately, most programs have an option for outputting plain (sometimes called ASCII) text. This is the option you should use. If for some reason you cannot, check with us first to see if we can read a file from your package. Remember, we can't use a submission we can't read.
2. We can accept files on regular 400 or 800k Macintosh diskette, IBM 5.25 inch , IBM 3.5 inch diskette, or Atari (8 bit) 5.25 inch diskette. For various reasons, Macintosh and IBM 5.25 inch diskette are preferred. Anything else, call us first. We may not be able to scrounge up the appropriate gear in time.

Electronic Mail:

At this time we are able to accept electronic mail submissions only through BitNet, InterNet, and CompuServe.

BitNet: mail should be addressed to
Bill Higgins@FNALB.BitNet

InterNet: mail should be addressed to
Higgins%FNAL.BitNet@UICVM.UIC.EDU
or
71631.745@Compuserve.COM

CompuServe: Mail should be addressed to
71631,745 (Bill Leininger)

Deadline for submissions for PYRO #46 (next issue) is May 5, 1990.

Deadlines for the next few issues are as follows:
#46 - May 5, 1990
#47 - August 5, 1990